

New and rare British spiders

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Summary

Both sexes of *Ero aphana* (Walckenaer), a species new to Britain, are described. The female of *Robertus insignis* O. P.-Cambridge is described from an Estonian specimen. The rediscovery of *Enoplognatha caricis* (Fickert) in Britain is recorded, and both sexes described. The female genitalia of the related British species of *Enoplognatha* are figured, and the synonymy of the species discussed. Recent occurrences of *Philodromus praedatus* O. P.-Cambridge, *Glyphesis servulus* (Simon) and *Maro sublestus* Falconer in Dorset are recorded.

Ero aphana (Walckenaer)

Aranea aphana: Walckenaer, 1802, p. 206; *Ero aphana*: Simon, 1881, p. 33; 1932, pp. 774, 778; Wiehle, 1953, p. 62.

Total length: ♀ 2.5-3.0 mm; ♂ 2.6 mm. **Carapace:** Length 1.2-1.3 mm; pale yellow with dark brown markings, similar to other British species of *Ero*. With some strong spines in mid-line and on front of head, and on clypeus. **Abdomen:** pale yellow with darker markings on sides and ventrally, and sometimes with large white patches dorsally. There are four dorsal tubercles, larger in the ♀ than in the ♂, the posterior pair being farther apart and equal to, or slightly larger than, the anterior pair. **Sternum:** dark brown, with a few yellow patches. **Chelicerae:** dark brown at distal end, shading to pale yellow at base. **Legs:** pale yellow with dark brown annulations. **Male palp:** Figs. 1 and 3; cymbium bears a laterally curved highly sclerotized trilobed process at its posterior end, and a flattened anteriorly curved hook-like process just anterior to it. **Epigyne:** Fig. 4; with a prominent central "tongue" dividing a broad cavity. Unlike all other British species.

Occurrence: Parley Common, Dorset; Grid ref. SZ(40) 088 990. One male in a pitfall trap, 5 June – 10 July 1974; one female in a pitfall trap, 10 July – 7 August 1974; one female in a D-vac suction sample, 7 August 1974; one female in a pitfall trap, 7 August – 17 September 1974. All taken on dry heathland dominated by *Calluna vulgaris* (L.), with small amounts of *Ulex minor* Roth and *Erica cinerea* L. and

isolated clumps of *Ulex europaeus* L. A few trees, mainly *Pinus sylvestris* L. and *Betula* sp., were nearby. The *Calluna* was in the building and mature phases, with a height of between 30 and 60 cm. There were some patches of bare ground, mainly in very stony areas and near paths. The site lies on the Tertiary Bagshot Beds. *E. aphana* is widespread in western Europe and in North Africa.

Robertus insignis O. P.-Cambridge

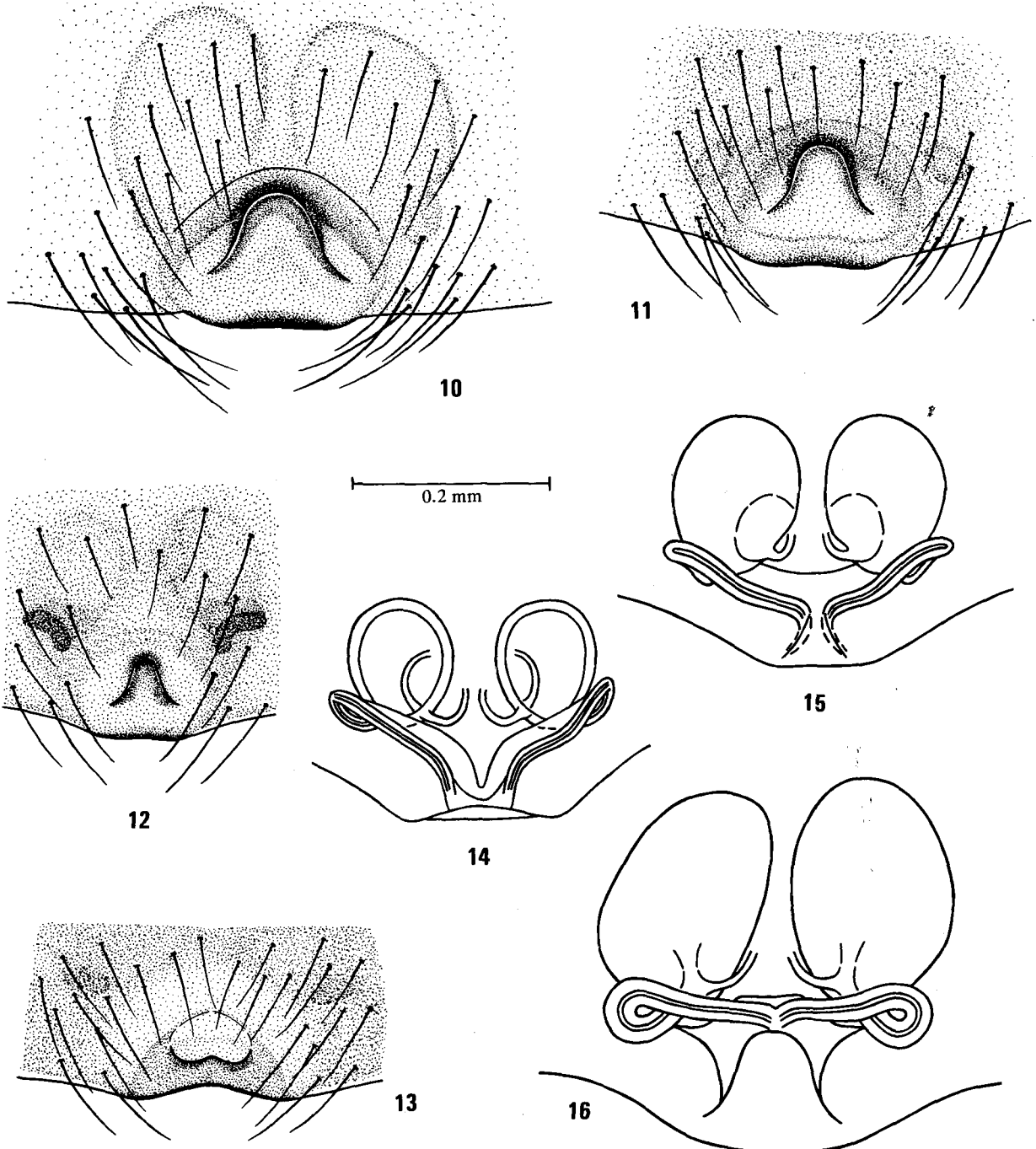
Robertus insignis: Locket and Millidge, 1953, p. 89; Wiehle, 1960, p. 237.

Only a single male of this species has been taken in Britain. The female has recently been collected with the male by A. Vilbaste in Estonia, and through the courtesy of J. Wunderlich we were able to examine this specimen. It was thought useful to include a description of the female here, in case it should be found in Britain.

Total length: 3.0 mm. Colour of carapace, abdomen, sternum and legs as described by Locket and Millidge (1953) for male. **Legs:** with one fine dorsal spine on each tibia. MT I/t I and MT IV/t IV about 1.45. Tm I = 0.55. **Epigyne:** Fig. 5; an oval, slightly concave, lightly chitinized plate with a prominent dark U-shaped structure toward the anterior end. Unlike all other British species.

Genus *Enoplognatha* Pavesi 1880

A female *Enoplognatha* taken by F. O. P.-Cambridge in a swamp at Hyde (Dorset) in May 1888, was described by O. P.-Cambridge (1889) as *E. caricis* (Fickert), but he later (1907) stated that further examination proved it to be *E. mandibularis* (Lucas). The specimen was re-examined by Jackson (1924) who correctly concluded that it was identical with a specimen which he had collected on the banks of the Somme in 1916, and which had been identified by Simon as *E. maritima* Simon (= *E. schaufussi* (L. Koch)). However, the recent discovery of a male, clearly assignable to *E. caricis*, in a marsh close to the original locality in Dorset, has led to a further re-examination of the specimens. Comparison with a female *E. caricis* kindly loaned by J. Wunderlich, with the original description (Fickert, 1876) and with that of Wiehle (1937) clearly indicates that the females collected by Pickard-Cambridge and by Jackson are also *E. caricis* (the type probably no longer exists).



Figs. 10-13: *Enoplognatha* spp. female epigynes. 10 *E. caricis* (Fickert) (coll. Wunderlich); 11 *E. caricis* (coll. Cambridge); 12 *E. crucifera* (Thorell) (Scot Head); 13 *E. oelandica* (Thorell) (Hayling Island).

Figs. 14-16: *Enoplognatha* spp. female vulvae, from inside; 14 *E. oelandica*; 15 *E. crucifera*; 16 *E. caricis* (coll. Wunderlich).

some extent in its proportions and clarity, occasionally being reduced or almost absent. The seminal vesicles and ducts are also sometimes less obvious than as shown in Fig. 12, but when visible the shape of the ducts is quite characteristic. However, the most obvious diagnostic character in the female is the pair of parallel white lines on the ventral surface of the abdomen, which separates it from all other British species of *Enoplognatha*.

Occurrence: the record given in Locket, Millidge and Merrett (1974, Map 281) for Dorset is incorrect (this being *E. caricis*), and the record for Staffordshire must be considered doubtful as it appears to be a coastal species in Britain. The specimen is an *E. crucifera* male, which was sent to Jackson by L. A. Carr from Lichfield in 1921, but there is no evidence of the precise locality or habitat.

Enoplognatha oelandica (Thorell)

Steatoda oelandica: Thorell, 1875b, p. 92; 1875c, p. 56; *Enoplognatha* (?) *oelandica*: Simon, 1884, p. 195; Wiehle, 1960, p. 234; *Drepanodus corollatus*: Förster and Bertkau, 1883, p. 246; *Enoplognatha nigrocincta*: Simon, 1884, p. 193; *Enoplognatha mandibularis nigrocincta*: Simon, 1914, pp. 286, 306; Jackson, 1924, p. 112; Bristowe, 1939, p. 64; Locket and Millidge, 1953, p. 85 (included in *E. mandibularis* (Lucas)).

Drepanodus corollatus Förster and Bertkau was synonymised with *E. oelandica* by Wiehle (1960). Comparison of Thorell's types of *E. oelandica* from the island of Öland in southern Sweden, and especially a vulva preparation made from one of the females by Holm in 1941, with British material from Hayling Island (Hampshire) and a French specimen from the Vendée, confirms Wunderlich's statement (*in litt.*) that the species described by Locket and Millidge (1953) as *E. mandibularis (nigrocincta)* is *E. oelandica*. Wunderlich also states (*in litt.*) that the male of *E. mandibularis* (Lucas), with shorter embolus and long palpal tibia, is illustrated by Wiehle (1937, fig. 255) but that his drawings of the female are of another species (possibly *E. diversa* (Blackwall)?). As in the case of *E. crucifera*, the description of both sexes and the figures of the male given by Locket and Millidge (1953) are quite adequate, but the female genitalia are incompletely illustrated. The epigyne of a specimen from Hayling Island is shown in Fig. 13, and its vulva in Fig. 14. The shape of the posterior margin of the kidney-

shaped cavity varies to some extent, as does that of the darkened chitinised area behind it, but the light-coloured cavity and the strong indentation of the posterior margin of the epigyne are always characteristic. The disposition of the ducts in the cleared vulva is also distinct. However, as in *E. crucifera*, in the female the colour of the ventral surface of the abdomen, with its large speckled white patch as described by Locket and Millidge, is the most obvious diagnostic character.

Occurrence: the examination of specimens during this investigation has shown that the record given in Locket, Millidge and Merrett (1974, Map 282) for Scolt Head, West Norfolk, is incorrect and should refer to *E. crucifera*. *E. oelandica* appears to be mainly a species of northern and central Europe, whereas *E. mandibularis* (Lucas) is found in the south of Europe.

Occurrence of some rare spiders in Dorset

***Philodromus praedatus* O. P.-Cambridge.** One male of this species was taken in a pitfall trap at Powerstock Common in July 1974; Grid ref. SY(30) 536 967. A wet *Quercus* woodland with a little *Crataegus monogyna* Jacq. and some *Rubus*. Sparse herb layer; some coarse grasses and clumps of *Carex pendula* L. The area lies on the Middle Jurassic Fullers' Earth series, and is a Dorset Naturalists' Trust reserve. This is the first specimen recorded in Britain for about fifty years, although it was found by O. P.-Cambridge at Bloxworth in the last century. In this fresh specimen, the small pointed ventral apophysis on the palpal tibia (see Locket, Millidge and Merrett, 1974, text-fig. 12a) has a pale coloured process within it, as described by Pickard-Cambridge (1879).

***Glyphesis servulus* (Simon).** Large numbers were obtained in pitfall traps at Bracketts Coppice; Grid ref. ST(31) 516 072. Trapping commenced on 10 April 1974 and the numbers caught were as follows: 10 April – 2 May, 41 ♂♂ 6 ♀♀; 2–20 May, 45 ♂♂ 4 ♀♀; 20 May – 18 June, 24 ♂♂ 1 ♀; 18 June – 21 July, 1 ♂ 1 ♀. No more had been caught by early March 1975. The area is an old damp ungrazed pasture on clay, comprising clumps of tall *Deschampsia caespitosa* (L.) and *Molinia caerulea* (L.) with some fine grasses, mainly *Agrostis* sp., and a little *Betula*

scrub. It lies on the Middle Jurassic Fullers' Earth series, and is a Dorset Naturalists' Trust reserve. *G. servulus* has previously been recorded in Britain only from wet litter at Wicken and Chippenham Fens, Cambridgeshire.

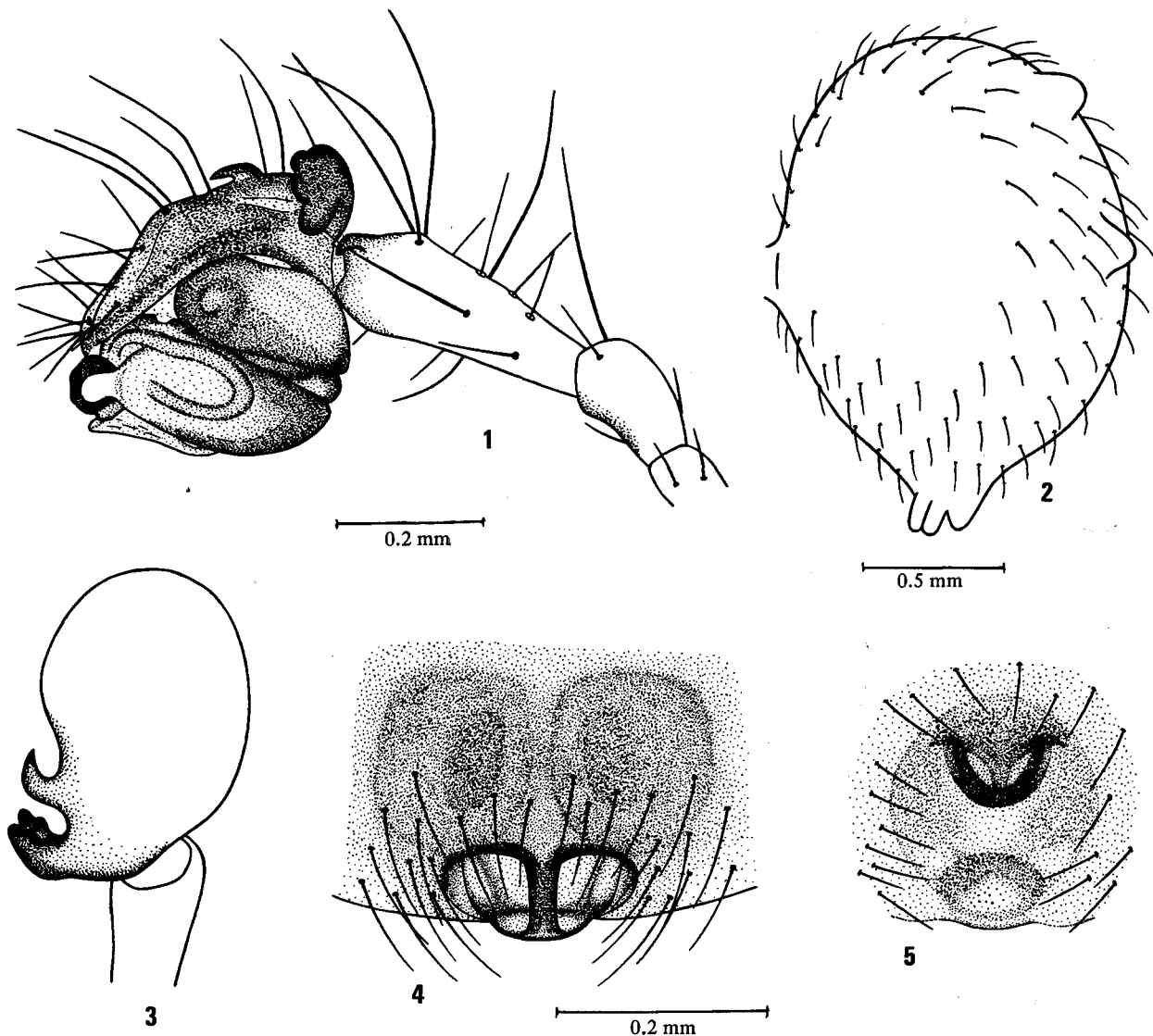
Maro sublestus Falconer. Parley Common; Grid ref. SZ(40) 092 993. One female in a pitfall trap during April 1974, on wet heath dominated by *Erica tetralix* L. and *Molinia caerulea* (L.) growing in *Sphagnum*, close to an extensive area of tall *Myrica gale* L. One male obtained from a sample of wet *Salix* and *Betula* litter from nearby, 19 November 1974. A further 72♀♀ and 31♂♂ were obtained from five similar litter samples taken at various locations on Parley Common, 24 February 1975. Previously recorded in Britain only from Wicken and Woodwalton Fens in wet litter (Parker and Duffey, 1963), and from a swamp in Stirlingshire. A further unpublished record has recently been received, of a female taken in a litter sample from lakeside vegetation, Pull Wyke Bay, Windermere, Lancashire, January 1964; Grid ref. NY(35) 364 024 (coll. M. E. Bacchus, det. J. R. Parker).

Acknowledgements

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Figs. 1-4: *Ero aphana* (Walckenaer). 1 Male palp, from outside; 2 Male abdomen; 3 Male palpal cymbium, from above; 4 Female epigyne.

Fig. 5: *Robertus insignis* O. P.-Cambridge. Female epigyne.

The epigyne is superficially similar to that of *E. schaufussi*, and as Jackson's specimen is badly discoloured and in poor condition, Simon could easily have mistaken it for *E. schaufussi* (*maritima*). *E. caricis* is therefore redescribed here as a British species from the male found recently in Dorset, from the females taken by F. O. P.-Cambridge, Jackson and Wunderlich, and from a male and a

number of juveniles from the Simon Collection.

We are also indebted to J. Wunderlich for information (*in litt.*) regarding the synonymy of other British species of *Enoplognatha*. In the course of a revision of the central European species, he discovered that *E. schaufussi* (L. Koch 1882) is a junior synonym of *E. crucifera* (Thorell 1875), and that *E. mandibularis* *sensu* Locket and Millidge

(1953) (= *E. nigrocincta* Simon 1884) is a junior synonym of *E. oelandica* (Thorell 1875) (= *E. corollata* (Förster and Bertkau 1883)). This has been verified by comparison of British material with syntypes of *E. crucifera* and *E. oelandica* loaned by the Naturhistoriska Riksmuseet, Stockholm. The British species of the genus *Enoplognatha* are therefore as follows:

- E. ovata* (Clerck)
- E. thoracica* (Hahn)
- E. crucifera* (Thorell) (= *E. schaufussi*)
- E. caricis* (Fickert)
- E. oelandica* (Thorell) (= *E. mandibularis nigrocincta*)

As the females of *E. crucifera* and *E. oelandica* are inadequately illustrated in Locket and Millidge (1953), especially in relation to their distinction from *E. caricis*, the epigynes and vulvae of these two species are figured here, together with a few further notes on their synonymy, distribution and diagnostic characters.

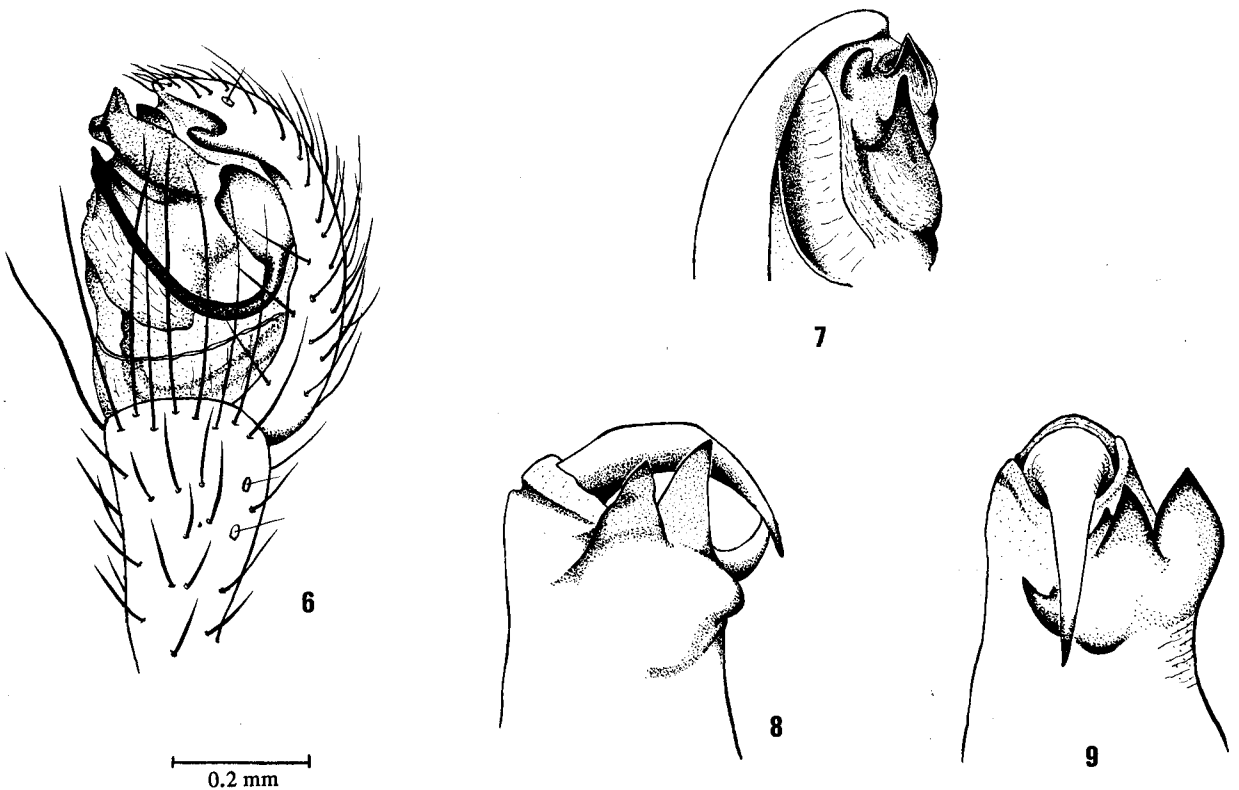
Enoplognatha caricis (Fickert)

Steatoda caricis: Fickert, 1876, pp. 57, 72; *Enoplognatha caricis*: Simon, 1884, p. 188; 1914, pp. 285, 306; O. P.-Cambridge, 1889, p. 114; Wiehle, 1937, p. 209; *E. mandibulare*: O. P.-Cambridge, 1907, p. 126; *E. maritima*: Jackson, 1924, p. 112; *E. schaufussi*: Bristowe, 1939, p. 64 (in part); Locket and Millidge, 1953, p. 83 (in part).

Total length: ♀ 4.5-6.0 mm; ♂ 4.0-4.5 mm.
Carapace: Length: ♀ 2.0-2.5 mm; ♂ 1.75-2.0 mm; yellow-brown, slightly darker at margins. Fovea strongly developed and darkened, and a few dusky streaks extend from it to ocular region. Head bears some stout hairs. Eyes subequal, anterior and posterior medians forming about a square, posterior medians slightly closer to each other than to laterals. Laterals contiguous. *Abdomen*: ♀: greyish-brown, with an obscure dorsal folium, comprising a pair of large dark patches antero-laterally and a single larger central dark patch posteriorly. The dorsal blood vessel, which appears as a dark lanceolate marking, is flanked on each side by a broken white line which extends from between the anterior dark patches to the anterior edge of the posterior dark patch. With four reddish impressed dots lateral to these white lines. Sometimes covered with scattered white spots. Ventrally greyish-brown with a few scattered white spots; no white lines as in *E. crucifera* or large white

patch as in *E. oelandica*. The whole abdomen thickly clothed with long dark hairs. ♂: dorsal folium may be very obscure, sometimes whole abdomen greyish-brown with scattered white spots. *Sternum*: brown, darker at margins, pointed posteriorly. *Chelicerae*: yellow-brown, darker apically. ♂: with two robust curved teeth on inner margin, and one pointed tooth on outer margin (Figs. 8 and 9). *Legs*: yellow-brown, slightly darkened at apical ends of segments. Tm I = 0.65-0.70. Tibiae I and II with two long fine spines dorsally; tibiae III and IV with one dorsal spine. (Contrary to Locket and Millidge (1953) who state that *E. crucifera* and *E. oelandica* have two dorsal spines on tibia I and one on tibiae II-IV, all specimens of these two species which were examined also had two dorsal spines on tibia II as well as on tibia I). Moderately long, thickly clothed with hairs. MT I: 1/d (at mid point) about 13 (♀♂). MT I/t I = 2.2. *Epigyne*: with a prominent rounded central "tongue", which is much broader than in *E. crucifera* and which extends anteriorly into a deep cavity. The epigyne of the German specimen received from Wunderlich (Fig. 10) was larger than that of Pickard-Cambridge's female (Fig. 11) and the seminal vesicles showed more clearly, but the proportions were the same. *Vulva*: Fig. 16; easily distinguishable from those of *E. crucifera* and *E. oelandica*. *Male palp*: Figs. 6 and 7; close to that of *E. oelandica*, but distinguished by the structure of the palpal organs at the tip. *Diagnostic characters*: the female is easily distinguished from all other British species of *Enoplognatha* by the colour of the abdomen, both dorsally and ventrally, by the vulva, and less obviously by the epigyne. The male is easily recognised by the shape of the cheliceral teeth.

Occurrence: Hyde, Dorset; Grid ref. probably about SY(30) 865 905. One female coll. F. O. P.-Cambridge, May 1888, in a swamp. The Warren, Dorset; Grid ref. SY(30) 855 915. One male in a pitfall trap, late July 1974. In a small area of marsh bordering a river, dominated by *Phragmites communis* Trin. and *Carex riparia* Curt. with some *Symphytum officinale* L. and *Urtica dioica* L., and a little *Typha latifolia* L. at the water's edge. If, as seems likely, Pickard-Cambridge collected his female in the marsh which is easily accessible near the road at Hyde, this would be only about 1 Km from where the male was found and in the same



Figs. 6-9: *Enoplognatha caricis* (Fickert) male (Dorset). 6 Palp, from outside; 7 Tip of palp, from inside; 8 Chelicera, from posterior (inner) side; 9 Chelicera, from below.

system of marshes along the banks of the River Piddle. The female collected by Wunderlich was taken in a pitfall trap in a marsh near Spaichingen, south-west Germany, in May. The species appears to be rare on the continent, but nearly all records are from marshes.

Enoplognatha crucifera (Thorell)

Zilla (?) *crucifera*: Thorell, 1875a, p. 57; 1875c, p. 14; *Enoplognatha crucifera*: Pavesi, 1880, p. 192; *Meta schaufussi* L. Koch, 1882, p. 628; *Enoplognatha maritima*: Simon, 1884, p. 189; 1914, pp. 284, 306; Wiehle, 1937, p. 207; *Enoplognatha schaufussi*: Bristowe, 1939, p. 64 (in part); Locket and Millidge, 1953, p. 83.

Comparison of Thorell's types of *E. crucifera* from Nikopol in southern Russia, specimens of *E. maritima* received from Paris (Simon Collection), material from the L. Koch Collection (British Museum (Natural History)) of *E. schaufussi* collected in Majorca, and

British material of *E. schaufussi* from several collections, leaves no doubt that these are all one species, which must be called *E. crucifera* (Thorell). Although Locket and Millidge (1953), following Bristowe (1939), include the British specimen of *E. caricis* as a synonym of *E. schaufussi*, their description of both sexes and figures of the male were clearly taken from specimens of *E. crucifera*, and are therefore valid. Their drawing of the female epigyne (text-fig. 54b), however, is ambiguous because the structure appears to have been obscured by a gelatinous plug which has been found to cover the epigyne in some specimens. The epigyne of a fresh specimen from East Anglia (Scolt Head) is shown in Fig. 12, and its vulva in Fig. 15. The epigyne is similar to that of *E. caricis*, but the central "tongue" is smaller and less rounded, and extends anteriorly into a much shallower depression. This "tongue" varies to